

## PENT COOPERATION TREA

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## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
 United States Patent and Trademark  
 Office  
 Box PCT  
 Washington, D.C.20231  
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in its capacity as elected Office

Date of mailing (day/month/year) 10 October 2000 (10.10.00)	
International application No. PCT/US00/03455	Applicant's or agent's file reference 7441/VB
International filing date (day/month/year) 10 February 2000 (10.02.00)	Priority date (day/month/year) 22 February 1999 (22.02.99)
Applicant KLUESENER, Bernard, William et al	

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:

17 July 2000 (17.07.00)

in a notice effecting later election filed with the International Bureau on:

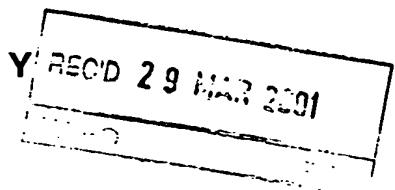
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2. The election  was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  Zakaria EL KHODARY
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38



## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

## (PCT Article 36 and Rule 70)

Applicant's or agent's file reference 7441/VB	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US00/03455	International filing date (day/month/year) 10/02/2000	Priority date (day/month/year) 22/02/1999
International Patent Classification (IPC) or national classification and IPC C11D1/72		
<p>Applicant THE PROCTER &amp; GAMBLE COMPANY et al.</p> <p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p> <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I    <input checked="" type="checkbox"/> Basis of the report</li> <li>II    <input type="checkbox"/> Priority</li> <li>III    <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV    <input type="checkbox"/> Lack of unity of invention</li> <li>V    <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI    <input type="checkbox"/> Certain documents cited</li> <li>VII    <input checked="" type="checkbox"/> Certain defects in the international application</li> <li>VIII    <input checked="" type="checkbox"/> Certain observations on the international application</li> </ul>		

Date of submission of the demand 17/07/2000	Date of completion of this report 28.03.2001
Name and mailing address of the international preliminary examining authority:   European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized officer  Ainscow, J  Telephone No. +31 70 340 3886



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US00/03455

## I. Basis of the report

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments (Rules 70.16 and 70.17).)*):

**Description, pages:**

1-34                   as originally filed

**Claims, No.:**

1-10                   as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description,               pages:
- the claims,                   Nos.:
- the drawings,               sheets:

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US00/03455

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes:	Claims	3,6,7,9
	No:	Claims	1,2,4,5,8,10
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-10
Industrial applicability (IA)	Yes:	Claims	1-10
	No:	Claims	

2. Citations and explanations  
**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:  
**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:  
**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/US00/03455

**Item V:**

The following documents are referred to:

- D1 WO-A-95/34633
- D2 EP-A-0254208
- D3 EP-A-0124815
- D4 WO-A-99/06466
- D5 WO-A-98/11186
- D6 GB-A-2158080
- D7 EP-A-0343504

1. D1 discloses automatic dishwashing compositions comprising "BASF LF 221" (see page 20, formulations 2 and 4) together with a builder and a bleach. BASF LF 221 is  $C_{13-15}$  alkyl-O-(EO)<sub>9-10</sub>(BO)<sub>1-2</sub> according to the footnote and therefore appears to be within both formulae b(i) and b(ii) in present claim 1.

D2 (examples 7-10) discloses similar compositions. The surfactants are as described in examples 1-3, and include compounds according to present formula b(i) and b(ii).

D3 (examples 2 and 4 read in conjunction with table I on page 7) also discloses automatic dishwashing compositions comprising surfactants b(i) and b(ii) and a builder.

In D4, examples 8, 11, 12 and 14 an ether-capped polyethoxylated alcohol as described in example 6 is used in granular automatic dishwashing compositions which further comprise builder, bleach, cobalt catalyst, bleach activator and enzyme.

D5, examples 1-3 discloses compositions similar to those used in D4.

D6, example 4 and D7, page 5 also appear to be according to present claim 1, alternative b(ii).

The subject-matter of claims 1, 2, 4, 5, 8 and 10 does not therefore seem to be novel (Article 33(2)).

2. The features of claims 3, 6 and 9 are obvious modifications in view of D4, pages 15-19, 24 and 37-38, and similar passages in D5. Claim 7 is not entirely clear for the reasons given under Item VIII below. Furthermore, the compounds listed seem to be obvious selections from the above-mentioned prior art for which no surprising effect has been shown.

Claims 3, 6, 7 and 9 do not therefore involve an inventive step (Article 33(3)).

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/US00/03455

**Item VII:**

1. "Inches" do not comply with Rule 10.1.
2. "Incorporated by reference" seems redundant in view of PCT/GL/IPE II-4.17.
3. On pages 14 and 16 unpublished documents are referred to (cf. PCT/GL/IPE II-4.18).
4. D1-D7 should have been referred to in the description (Rule 5.1(a)(ii)).

**Item VIII:**

1. From claim 1 it appears that surfactant b(i) consists of successive blocks of EO, optionally PO, and finally BO as a capping block. However four formulae in claim 7 show either alkyl-PO-EO-BO or alkyl-BO-EO-BO, which thus appear inconsistent with claim 1.

Similarly, it appears from that surfactant b(ii) is a double-capped polyalkylene glycol where the alkoxy group has 2-6 carbon atoms. There is no indication in claim 1 that the polyalkoxy group can be a mixture of different alkoxy units, but the penultimate formula in claim 7 shows a mixture of EO and PO.

In view of these inconsistencies, claims 1 and 7 are not clear (Article 6).

2. On page 3, last paragraph it is stated that the invention relates to butoxy capped surfactants, but surfactant b(ii) includes no such restriction. Furthermore, noting that the R<sup>2</sup> group of b(ii) is optionally hydroxy-substituted, it appears possible for b(ii) to be uncapped. Further clarification is necessary.

3. The definition of "X/Y number" on page 6 should be included in claim 1 for the sake of clarity (PCT/GL/IPE III-4.2).

4. Some occurrences of "about" on pages 2-4 are inconsistent with claim 1. The same applies to "optionally" on page 9.

5. The figures 99.9% and 95% at the foot of page 12 do not seem possible, as claim 1 requires a minimum of 5.1% builder and surfactant.



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> :  <b>C11D 1/72</b>		A1	(11) International Publication Number: <b>WO 00/50551</b>  (43) International Publication Date: 31 August 2000 (31.08.00)
(21) International Application Number: PCT/US00/03455 (22) International Filing Date: 10 February 2000 (10.02.00)  (30) Priority Data: 60/121,034 22 February 1999 (22.02.99) US		(81) Designated States: AE, AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), DM, EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(71) Applicant ( <i>for all designated States except US</i> ): THE PROCTER & GAMBLE COMPANY [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US).  (72) Inventors; and (75) Inventors/Applicants ( <i>for US only</i> ): KLUESENER, Bernard, William [US/US]; 11619 New Biddinger Road, Harrison, OH 45030 (US). SCHEPER, William, Michael [US/US]; 2393 Picnic Woods Drive, Lawrenceburg, IN 47025 (US). SIVIK, Mark, Robert [US/US]; 2434 Sheffield Court, Ft. Mitchell, KY 41017 (US). HAEGGBERG, Donna, Jean [US/US]; 2067 Greenpine Drive, Cincinnati, OH 45231 (US). JORDAN, Glenn, Thomas, IV [US/US]; 5750 Ridgeview Drive, Indian Springs, OH 45011 (US).		Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
(74) Agents: REED, T., David et al.; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217-1087 (US).			

(54) Title: AUTOMATIC DISHWASHING COMPOSITIONS COMPRISING SELECTED NONIONIC SURFACTANTS

(57) Abstract

Automatic dishwashing detergent compositions comprising: a) 5 % to 90 % by weight of builder; b) 0.1 % to 15 % by weight of: I) a surfactant of the formula  $R^1(EO)_a(PO)_b(BO)_c$ , wherein  $R^1$  is a linear or branched  $C_6$  to  $C_{20}$  alkyl;  $a$  is from 2 to 30;  $b$  is from 0 to 30;  $c$  is from 1 to 30; and said surfactant has an X/Y number less than 1.90; and or ii) a surfactant of the formula  $R^1O_eCH_2CH(R^3)O^1e?R^2$ , wherein  $R^1$  is a hydrocarbon radical having from 1 to 30 carbon atoms;  $R^2$  is a hydrocarbon radical having 1 to 30 carbon atoms;  $R^3$  is H, or a linear aliphatic hydrocarbon radical having from 1 to 4 carbon atoms;  $e$  is an integer having an average value from 1 to 40; c) optionally, from 0.1 % to 40 % by weight of a bleaching agent and d) adjunct materials, such as enzymes, surfactants other than (b), or chelating agents.

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 00/03455

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC 7 C11D1/72

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C11D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 95 34633 A (ECOLAB INC) 21 December 1995 (1995-12-21) page 20, formulations 2 and 4 ---	1,10
X	EP 0 254 208 A (HENKEL KGAA) 27 January 1988 (1988-01-27) examples 1-3,7-10 ---	1,10
X	EP 0 124 815 A (HENKEL KGAA) 14 November 1984 (1984-11-14) examples 2,4; table I ---	1,10
X	WO 99 06466 A (SCHEPER WILLIAM MICHAEL; SIVIK MARK ROBERT (US); PROCTER & GAMBLE) 11 February 1999 (1999-02-11) pages 15-19,24,37,38; examples 6,8,11,12,14 ---	1-10 -/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*&\* document member of the same patent family

Date of the actual completion of the international search

8 June 2000

Date of mailing of the international search report

30/06/2000

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## INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/US 00/03455

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 11186 A (PROCTER & GAMBLE) 19 March 1998 (1998-03-19) examples 1-3 ---	1-10
X	GB 2 158 080 A (ABM CHEMICALS LTD) 6 November 1985 (1985-11-06) example 4 ---	1,10
X	EP 0 343 504 A (HENKEL KGAA) 29 November 1989 (1989-11-29) page 5 ---	1,10
A	EP 0 054 895 A (HOECHST AG) 30 June 1982 (1982-06-30) page 9, lines 13-30; page 12, lines 25-29; examples 7,8,10 -----	1-10

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/03455

Patent document cited in search report	Publication date	Patent family member(s)			Publication date
WO 9534633	A 21-12-1995	AU 1848295	A	05-01-1996	
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